

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 09307169  
PUBLICATION DATE : 28-11-97

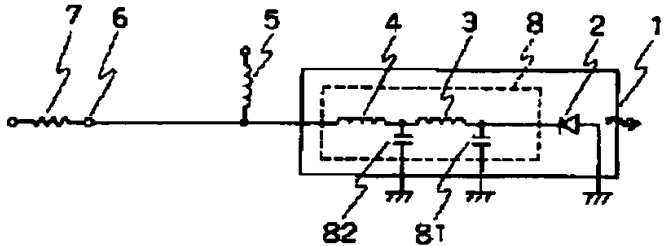
APPLICATION DATE : 20-05-96  
APPLICATION NUMBER : 08125103

APPLICANT : MATSUSHITA ELECTRIC IND CO LTD;

INVENTOR : ASAKURA HIROYUKI;

INT.CL. : H01S 3/10 H01S 3/13 H01S 3/18  
H03F 3/60

TITLE : SEMICONDUCTOR LASER MODULE



**ABSTRACT :** **PROBLEM TO BE SOLVED:** To obtain high modulation degree by a small power signal by restraining power loss caused by a load resistance inserted to a laser diode chip in series in a semiconductor laser module wherein a micro-wave signal is directly input as a modulation signal.

**SOLUTION:** This semiconductor laser module is provided with an input impedance matching circuit 8 wherein a bonding wire 3 and a microstrip line 4 for connecting a laser diode chip 2 and a modulation signal input terminal 6 are incorporated as a part of a constituent element in an inside of a module package 1 which contains a laser diode chip 2 and is provided with a modulation signal input terminal 6. Desirably, capacitance elements 81, 82 are connected between the bonding wire 3 and the microstrip line 4 and a ground. High transmission efficiency is obtained by matching input impedance in one or a plurality of frequency band regions by adjusting a fixed number of the circuit elements.

COPYRIGHT: (C)1997,JPO